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Farm to Liberation: Towards Feminist Food Justice

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Farm to Liberation: Towards Feminist Food Justice



Honors Thesis

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Advisor: Jeanne Holcomb, Ph.D.

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Abstract

Women are one of the many vulnerable populations experiencing the detrimental effects of human-induced climate change, and our current system of food production is one of the largest contributors to this global problem. Not only do modern methods of food production contribute significantly to climate change, but they devalue women's knowledge and strip away their opportunities. A number of communities and individuals have begun to work against this system and work towards food justice through small-scale farming and growing their own food. Through the use of ecofeminist scholarship and original interviews, this project examines the problems within our current food production system and suggests steps and solutions for moving forward. So long as women are being fed by the very same system that subordinates them they will never be truly liberated, making it necessary for feminist food justice.

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Introduction

Climate change is one of the foremost, arguably *the* foremost, problem that our world is facing today. The consequences of climate change are devastating: rising sea levels, destruction of ecosystems, widespread drought, lack of access to education, and species extinction to name just a few (Shiva 1993; Ergas and York 2012). One of these – lack of access to education – is not like the others. Climate change is not exclusively environmental, and there is a massive social price to this widespread environmental destruction and climate change that women, in particular, are affected by. People do not just affect the environment, but the environment affects people, too. Specifically, this paper connects women, climate change, food, and ecofeminism. In particular it addresses why feminists should concern themselves with the environment and food justice, and why a model of feminist food justice is necessary.

To further examine these issues a qualitative study took place using interviews to better examine the experiences of Dayton's local food producers. The purpose of the study was to examine how local food producers view their role within a larger social context particularly as it relates to issues of ecofeminism, climate change, and issues of social justice. The study adds to growing scholarship on local and community farming and provides insight into the Dayton food community and efforts in food justice.

Ecofeminism

Ecofeminism gained ground in the late 1970s and “is a philosophy that examines feminism in relation to the natural environment and lobbies for women's ability to engage with the earth, respond to, and solve ecological crises” (White 2011:17). While

the connection between women and nature is a common theme among all ecofeminists, it is important to understand that, as with any type of feminism, there are a number of different types of ecofeminism (Mallory 2013). Certain types of ecofeminism heavily rely on essentialism and use gendered ideas of the environment. Ideas within this type of ecofeminism include protecting the earth because *she* is our mother; the idea that women should care about the earth because *she* is our provider; that women, as caring beings, should be concerned for the earth; that women, as child-bearers, are more acutely aware of the workings of nature so should be more concerned with it; and the like (Evans 2015). In certain circles of ecofeminism these are the narratives that occupy their core values.

The ecofeminist perspective that is the focus of this piece, however, is one that recognizes larger systems at play that oppress both women and nature, and emphasize women's direct, real relationship with land and the environment (Shiva 1993; Brownhill, Kaara, and Turner 2015). The reality of the situation is that women have an intimate relationship with the earth, and not in a philosophical *Mother Earth* kind of way, but in a real, documented way as is demonstrated shortly. The environment should be a concern for all humankind, but some argue that women bear the brunt of the consequences of the destruction of our earth, and for this reason it is necessary to apply an ecofeminist perspective to climate change (Shiva 1999).

Ecofeminists tend to draw connections between systems of environmental destruction and systems of women's oppression. Specifically, the corporations that often benefit and profit from the destruction of the environment are the same ones that benefit from the continued subordination of women. The capitalist system sees value in very narrow terms only as that which can be used as a means for profit (Shiva 1999; Ergas and

York 2012; Marçal 2016), and it is this same attitude that is taken towards the earth.

Through capitalist, patriarchal eyes, both women and the earth is seen only as a resource to be exploited for profit at any cost necessary. As Mallory notes,

Ecofeminists hold that in order to ensure the survival and flourishing of all life systems on the planet, the patriarchally identified values of the domination, exploitation, and control that condition western attitudes toward nature must be replaced with the more life-sustaining feminist values of nurturance, care, and reciprocity (2012:176).

While the last part of this quote reflects the sometimes gendered nature of ecofeminism, this does not necessarily mean that ecofeminism *relies* on essentialist notions of women. Mallory is not wrong in saying that feminists value nurturance, care, and reciprocity. The alternatives to these values (ignorance, negligence, and exploitation) are associated with patriarchal values which feminists explicitly work against in one way or another. While feminism does focus on issues of women, ecofeminists are not necessarily suggesting that women specifically need to be concerned with issues of nature *because* they are women and are caring, nurturing, motherly, or any other traditionally gendered trait. Instead it is saying that feminist values need to be applied to environmental efforts. Ecofeminism works towards “social redesign on feminist principles” (Birkeland 1993:31), and it is these principles that guide ecofeminism, not an essentialist idea of women. It is this focus on women, concern for the environment, and a challenging of traditional patriarchal norms and systems that form the foundation of ecofeminism. This involves understanding humans as working with nature and as a part of nature, not dominators over nature (Shiva 1999). Feminism has always concerned itself with women’s issues and women’s well being, and ecofeminism is doing just this through integrating environmental justice and gender equality.

Numerous scholars and feminists alike have voiced a number of critiques of ecofeminism, however. Many of these critiques echo what is written above: that much of ecofeminism relies on gender stereotypes and benevolent sexism in its writings and teachings (Alaimo 1994; Sanap and Bhatane 2017). Since so much of the activism of other branches of feminism explicitly work against gender stereotyping and sexism, ecofeminism is seen as a step backwards. Other scholars believe quite the opposite, however, and argue that the model of “Mother Nature” as caring, life giving, and selfless is a model for all women (Sanap and Bhatane 2017). Rather than lament that these are values that limit women’s position in the world, women should embrace these values as they come from the earth, which these scholars see as the perfect model. Alternatively, Anne Archambault questions why either men’s or women’s traits should be valued above the other, as both were created within a problematic patriarchal system (1993). Even within the critiques of ecofeminism, there are disagreements.

Janet Biehl, a social ecology scholar, sees this argument that women should follow the earth’s model as destructive to women. Embracing these values reinforces restrictive gender roles and results in the responsibility of women to maintain the earth (Archambault 1993). Ecofeminism, then, makes women’s freedom and liberation even more difficult. Biehl grounds one of her more prominent criticisms of ecofeminism in its use of metaphors, as she argues that simply comparing women to the environment (e.g. women are raped by men like the earth is raped of its resources by men) does not make the foundation of a political movement (Biehl 1991). For feminists like Biehl, ecofeminism is simply a weak political movement that can be better substituted with other movements like social ecology.

Important to note is that much of the most prominent criticisms of ecofeminism came 20 or more years ago, and the ecofeminist movement has changed a great deal since then. This is not to say that they should not still be taken into account, though. Noticeably absent from these critiques is one that claims that women are *not* in a more vulnerable position than men in terms of climate change or that patriarchy and capitalism only affect women, not the environment. With the vast amount of research on how climate change and environmental degradation has affected women (*see reference list*) it is difficult to make the case that women are not unequally affected. Even the critics of ecofeminism admit that women are in a more vulnerable position with environmental degradation (Biehl 1991; Sanap and Bhatane 2017). Additionally, there seems to be no credible critic that says the social systems humans create do not affect the environment and people alike. In fact, there are entire disciplines that study people's relationship to the environment (e.g. rural sociology and urban sociology).

Certainly, ecofeminism is not without its flaws; there has yet to be a political or social movement that is. But used in the right way, it can provide valuable insight into modern problems of climate change and women's social and ecological positioning that other lenses simply cannot provide. So long as one stays conscious of ecofeminism's potential to fall into gender stereotypes and continues to question the movement, using an ecofeminist lens can serve as a crucially important research tool.

Women and Climate Change

The anthropogenic climate change that our world is currently experiencing is a well-documented reality with severe repercussions. The use of fossil fuels, deforestation,

and the like have all led to a massive increase in the amount of greenhouse gases in the atmosphere (Dankelman and Jansen 2010). Women, particularly rural and poor women, are more likely to experience the negative consequences of climate change than men because of their subordinate social, political, and economic status (Shiva 1993; Ergas and York 2012). For example, as water availability changes in rural areas due to drought, pollution, and other factors, women and girls, as the primary drinking water suppliers, are forced to walk further distances for drinkable water. In water insecure places, women may walk up to four hours to fetch water or expend almost a quarter of their daily caloric intake gathering water (Dankelman and Jansen 2010). On average, women and children have to walk 3.7 miles to obtain drinkable water (OHCHR 2010).

A study conducted in the Himalayan region of Nepal found that environmental degradation caused increased stress on families that required girl children to do more work at an earlier age (Leduc 2009). In other parts of the world, girls, who are already pulled out of school at an earlier age than boys, are being pulled out of school even sooner to help with household responsibilities and the increased agricultural work due to crop changes because of climate change (Dankelman and Jansen 2010). In this way, girls' lack of access to education may, in part, be caused by climate change.

Additionally, climate change has caused surprising changes in family dynamics. When men migrate to urban areas for new jobs because of a reduction of agricultural jobs due to climate change, women are left to do all the domestic work, care work, and agricultural work (Leduc 2009; Bee 2014; Brownhill, Kaara, and Turner 2015). In the wake of natural disasters – which have increased in frequency and severity with climate change – while men do a majority of risk management (e.g. search and rescue), women

are left to do everything else. Household duties and care work, community responsibilities, emotional support work, and tending to crops often fall in the hands of women in these times (Neefies and Nelson 2010). In fact, during any time of agricultural, economic, or other hardships, women are largely responsible for the emotional support work, the importance of which should not be discounted (D. Fink 1988). Additionally, girls, particularly during times of natural disasters, will often receive less food than their male counterparts (Shiva 1993; Neefies and Nelson 2010). Many girls around the world receive less food whether or not their communities are food secure because of gender discrimination, but climate change is exacerbating this inequality (Shiva 2016).

The list of consequences unique to women because of climate change could go on for pages and, quite literally, there are shelves of books written about them. The point here is to say that although men and women suffer the effects of climate change, women suffer in a way that men do not, and it is widely documented that women suffer *more* than men because of their subordinate status in society. The *feminization of poverty* refers to the larger number of women who live in poverty and severe poverty than do men in every corner of the world (Eichner and Robbins 2014). The patriarchal systems that led to this reality for millions of women around the globe are the same systems that are worsening women's situations through climate change and providing no solutions to the problem.

Women around the world, however, are helping to provide solutions to climate change and bringing their knowledge and experiences to the forefront of the movement. The Chipko Movement of the 1970s was one led by and largely made up of women protesters. It was a group of women from the foothills of the Himalayas who successfully

protested and halted the destruction of their trees, land, and water (Shiva 1999; Dankelman 2010). Similarly, increased industrial development in the 1950s led women in Japan to organize for pollution prevention measures, which resulted in government action (Dankelman 2010). In 2006, the women of Bweenga, Zambia gathered over concerns of their lack of water access due to increased droughts and weather changes, resulting in the international organization, *Water Aid*, sinking boreholes closer to their area (Macha 2010), and the list could go on. In fact, women make up between 60-80% of grassroots climate change organizers and this does not even account for women's participation outside of grassroots movements (Brown and Ferguson 1995; Bell and Braun 2010; York and Ergas 2012). Women's organizing around climate change and their contributions have made significant differences in the movement towards environmental justice.

Additionally, many international organizations have been established that put women at the center of their work, such as the Women's Environment & Development Organization (WEDO), Women's Earth and Climate Action Network (WECAN), GenderCC, Women in Europe for a Common Future (WECF), Global Gender and Climate Alliance (GGCA), and ENERGIA, to name just a few. In addition to these, there are numerous organizations that have put a new emphasis on gender in their work (including various UN programs), as well as local, community organizations around the world that integrate women and the environment (Dankelman 2010).

Even outside of grassroots movements and organizations, women's voices and contributions are making differences in climate change. A 2012 study found that in "countries where women have higher political status – as indicated by the length of time women have had the right to vote and women's representation in parliament and

ministerial government – tend to have lower CO₂ emissions per capita” (Ergas and York 2012:974). Women in politics put more of an emphasis on climate change, grassroots movements, and other environmental problems, suggesting that improving women’s equality may also improve the environment (Ergas and York 2012). Additionally, environmental consciousness and a commitment to sustainability have led numerous women into sustainable farming (Sachs et al. 2016). While women are some of the most adversely affected by climate change, they are also some of the most outspoken advocates of environmental justice and are actively working to find solutions.

Food and Climate Change

It is incredibly important to note that food production, in particular, has been a major contributor to the environmental crisis the world is facing today. A term commonly brought up in discussions of food and climate change is “food miles,” which refers to the distance that food travels from where it was produced to where it is consumed. In the United States, food travels an average distance of about 1,500 miles, a number that has grown drastically over decades due to the shift in the farming system (Pirog et. al. 2001). Some foods travel even further distances; for example, grapes, which are commonly imported from Chile, travel over 7,000 miles to reach Midwestern states (Pirog and Benjamin 2005). If a food is not in its “pure” form (e.g. an apple, rice, lettuce), and instead is a combination of a number of foods from various areas (e.g. snack mix, ice cream, bread, frozen meals) these food miles significantly increase. Richard Pirog, a leading scholar on food miles, calculated the total distance traveled of the ingredients to make strawberry yogurt – weighted so that it was proportional to the percentages of each

ingredient in strawberry yogurt – to be 2,216 miles (Pirog and Benjamin 2005).

While food miles are heavily discussed and reported on, in actuality they are a fairly minor contributor to the food system's greenhouse gas emissions. Numerous newspapers and magazines have articles written about food miles and eating locally, including *The New York Times*, *The Guardian*, and *The Economist*, oversimplifying the food system's contributions to climate change in public discourse (Schnell 2013). While food miles should not be ignored, they account only for 11% of the food system's greenhouse gas emissions, while 83% come from the actual production of the food (Weber and Matthews 2008). Indeed, food miles are not the primary contributor to climate change within the food system.

In 2006, the Food and Agriculture Organization of the United Nations released an in-depth report that outlined the significant environmental damage caused by livestock production around the world. The report outlined a number of important findings including that livestock emissions were the single leading cause of greenhouse gas emissions, even more than every single kind of transportation combined: cars, trucks, planes, and the like (Steinfeld et al. 2006). In a study conducted by Weber and Matthews, they found that a “21%-24% reduction in red meat consumption shifted to chicken, fish, or an average vegetarian diet lacking dairy, would achieve the same reduction as total localization” (2008:3512). This diet shift amounts to just over one day per week without consuming beef livestock products, and it accomplishes what shifting to a completely local diet could do in the reduction of greenhouse gas emissions.

These livestock emissions are coming from the factory farm system used to produce meat, and to add to the devastation, creation of these farms often requires

deforestation. Not only does deforestation destroy valuable vegetation that is integral in removing greenhouse gases from the atmosphere, but deforestation itself releases huge amounts of CO₂ emissions: “The FAO estimates that 1.6 billion tons (or 25 to 30 percent of all greenhouse gases released into the atmosphere each year) come from deforestation” (Shiva 1999:xxvi). Thus, not only are the building and use of these farms adding to the already high amount of greenhouse gases in our atmosphere, but they are simultaneously destroying a resource that could aid in reducing the effects of these emissions.

According to the same aforementioned United Nations report, livestock farming and production is the leading cause of resource consumption and environmental degradation that is largely responsible for climate change (Steinfeld et al. 2006), and the resources being depleted are not just land and greenery. To make a quarter pound of beef, it takes around 660 gallons of water, and in the US alone, raising livestock uses over 34 trillion gallons of water (Steinfeld et al. 2006). Likewise, the amount of feed necessary to produce the meat is as inefficient as the water use. “Industrial beef requires [22 pounds] of feed to produce [about 2 pounds] of food. Industrial pork requires [9 to 12 pounds] of feed to produce [about 2 pounds] of food. Factory-farmed chicken requires two to three times more feed than it produces” (Shiva 1999:xxiv). Not only is this an inefficient use of food, but it is an inefficient use of land that could be used to farm food to feed a hungry world rather than to feed animals for meat consumption. When parts of the world regularly suffer from food and water shortages, these are unaffordable inefficiencies.

Though livestock production is one of the largest contributors to climate change, this is not to say that non-meat production does not contribute to environmental degradation. The vast amounts of synthetic fertilizers, pesticides, and herbicides applied

to the soils that grow plants have contributed to environmental degradation and climate change in a number of ways. Fertilizers did not develop out of a need to provide additional nutrients to plants that soil did not provide, but out of a need to reallocate the nitrates used in explosives during World War II. After the war ended, explosives largely made up of nitrogen were converted into nitrogen fertilizers for plants, which are widely used today (Shiva 2016). An ethical question arises about transforming something that was once used to kill into something that is supposed to promote flourishing life; indeed, based on the damage these fertilizers have caused, one could argue that the war has only translated to that of one on the earth and soil (Shiva 2016).

Soil is of vital importance in creating nutritious, healthy produce and it is because of this that so many sustainable farms focus on producing healthy soils (Sachs et al. 2016; Shiva 2016). While using pesticides and herbicides may destroy the unwanted life in the soil, they also destroy much of the beneficial bacteria, fungi, and creatures and disturb the natural ecosystem of the soil (Greenpeace India Society 2011). The depletion of nutrients in the soil leads to a lack of nutrients in the plants, and increasingly the nutritional content of produce is diminishing within the industrial agricultural systems (Shiva 1999). Additionally, earthworms provide valuable plant fertilizer and their burrows in the soil allow it to hold more air and increase the water capacity of the soil, helping to prevent soil erosion. Despite being one of the most valuable assets in food production, they are often harmed and killed with the use of these synthetic chemicals (Shiva 2016).

Additionally, the increased reliance on pesticides and herbicides not only destroys soil and the life in it, but it necessitates an increased reliance on fossil fuels. Because pesticides and herbicides kill nutrients in the soil, the farm becomes reliant on synthetic

fertilizers created in factories powered by natural gas, an incredibly energy-intensive fossil fuel, to replace the nutrients in the soil (Shiva 1999; Shiva 2016). In 2000 alone, “the energy consumed while manufacturing fertilizers across the world was equivalent to 191 *billion* liters of diesel” (Shiva 2016:22) and this number is only projected to rise. Furthermore, about two thirds of this fertilizer does not even go to the plant and instead contaminates the water, ground, and surrounding environment leading to further environmental degradation and soil erosion (Greenpeace India Society 2011). Soil is eroding significantly more quickly than it can be replenished, and this erosion leads to a loss in cropland thereby leading to a loss of food. Over the next twenty to thirty years there will be 30% less food around the world due to soil erosion (Pimentel 2006). This, coupled with the fact that these very same crops that are reliant on synthetic pesticides, herbicides, and fertilizers are more vulnerable to climate change, could lead to devastating worldwide food insecurity (Shiva 2016).

While modern industrial farms add to environmental degradation through the use of synthetic fertilizers, pesticides and herbicides, they also do so through the use of tilling, the practice of turning up and breaking up soil to make it more workable for planting. The conventional tilling (or rotary tilling) used on many industrial farms releases carbon into the atmosphere, contributing to increases in CO₂, a harmful greenhouse gas (Lu and Liao 2016; Powlson et al. 2016). Agricultural practices that minimally disrupt the soil and do not till have significantly less CO₂ emissions, help to mitigate climate change, and they even promote higher crop yields (Lu and Liao 2016). In fact, not tilling coupled with other sustainable agricultural practices may actually produce crops more resistant to climate change (Powlson et al. 2016).

These practices put together make for a disastrous equation and the interconnectedness of climate change and food, specifically meat and dairy, is clear. Livestock production is a largely inefficient way to produce food and despite the focus on food miles in popular discourse, it is food production that is responsible for most of the greenhouse gases that come from the food system. Tilling, the use of synthetic chemicals, and conventional farming practices are depleting soils of nutrients and valuable organisms and ultimately leading to less food production through soil erosion. Surely, the food system is a significant contributor to the harm done to the Earth.

Women, Food, and Farming

While it may seem unlikely, gender inequality and farming have a deep history as the two are tightly intertwined. Historically, hunter-gatherer societies were more egalitarian and women were actually the primary providers of food for their communities (Shiva 1999). In fact, women as the gatherers produced about 80% of the calories consumed in these societies, while men as the hunters produced just 20% (Lee and DeVore 1969). Women's roles in gathering edible flowers, mushrooms, fruits, vegetables, and even medicinal plants sustained prehistoric societies and meat was only supplementary food to what women provided (Dankelman and Jansen 2010). In fact, even in modern day hunter-gatherer societies this remains true (Shiva 1999).

The shift to modern, industrial farming, though, is where many scholars argue the division of labor, devaluation of the feminine, and rise of patriarchy develops. A 2013 study tested this hypothesis by analyzing countries that have historically used plough agriculture with their current gender participation and gender norms (Alesina, Giuliano,

and Nunn). Their findings suggested that a connection between plough agriculture and gender inequality exists:

We have shown that individuals, ethnicities, and countries whose ancestors engaged in plough agriculture have beliefs that exhibit greater gender inequality today and have less female participation in non-domestic activities, such as market employment, firm ownership, and politics (Alesina et al. 2013:527).

Another study suggests just the same: that the shift from hunter-gatherer societies to industrial farming led to a rise in patriarchal norms and less participation by women in the public sphere (Hansen, Jensen, and Skovsgaard 2015).

The gender inequality that followed the plough may be due to the division of labor that arose from it: As men began using the plough and worked outside the home, women did more of the household duties and became less involved with the public sphere (Alesina et al. 2013; Giuliano 2015). A number of cultural assumptions about gender therein developed because of this division – namely that a woman’s place is in the home – which influenced systems, policies, and the like (Giuliano 2015). It was not simply the use of the plough that kept women from participating in public life, but the lasting impact of the gender assumptions that developed with the farming shift, which continue to impact women’s lives (Alesina et al. 2013; Hansen et al. 2015). Modern agricultural practices and institutions continue to be heavily influenced by these patriarchal norms and attitudes making it difficult for women to participate in farming and further harming women around the world (Sachs et al. 2016)

While malnutrition affects men and women alike, women and girls tend to be more adversely affected by it than men and boys. As previously mentioned, girls are already allotted less food than boys on a regular basis, and this is only exacerbated by

famine and inaccessibility to food (Shiva 1993; Sachs and Patel-Campillo 2014). Even in times of stability, if a “community [is] food insecure, it is the female children who pay the highest price in terms of malnutrition, because of gender inequality” (Shiva 2016:123).

The effects of malnutrition on women, particularly pregnant women, is something that can be felt for generations as the consequences of malnutrition are passed down to the child growing in her womb. These consequences include, “complications during pregnancy...[and babies of] low birth weights with little chance of survival” (Shiva 1993:78; Sachs and Patel-Campillo 2014). Even after birth, malnourishment throughout a child’s lifetime can cause anemia, which has a direct connection to deaths during pregnancy and childbirth (Shiva 1993). These are just a few of the numerous complications. There is a sad irony here, though, in that women play a huge role in agriculture and food production, but still they suffer from a lack of food.

As with many of women’s other contributions, their role in farming has been largely underrepresented and overlooked (Haney and Knowles 1988). Women were some of the first farmers, but still U.S. American cultural ideals of the farmer tend to be “a tractor-riding man in a John Deer hat, or a stoic male figure in overalls thoughtfully chewing a stalk of wheat” (Mallory 2013:185). In reality, though, it was women who domesticated eight of the major grains across the world including rice, wheat, corn, and barley (Stanley 1982). According to the Food and Agriculture Organization (2009), women produce over half the food that is grown and, maybe more importantly, eighty percent of the food in food-insecure areas, yet still their identity as women farmers is invisible (Haney and Knowles 1988). The prominent image of a farmer remains a man,

which simply reflects the ways in which patriarchal norms continue to define women's agricultural work (Dankelman and Jansen 2010; Sachs et al. 2016).

While part of the exclusion of women from this definition of farming is rooted in patriarchy, the ways in which work is defined within capitalism influences the definition, too. Vandana Shiva, a prominent ecofeminist scholar, writes that this exclusion of women is in part due to what is considered "work" within capitalist society:

Statisticians and researchers suffer a conceptual inability to define women's work inside and outside the house – and farming is usually part of both. This recognition of what is and is not labor is exacerbated by the great volume and variety of work that women do. It is also related to the fact that although women work to sustain their families and communities, most of what they do is not measured in wages (1993:166).

Shiva points out that in the current capitalist economic system, the way in which work is defined and valued often wholly ignores women's contributions. Women's knowledge about seeds and planting is not included in statistical representations of farming, but these are still vital ways women work on the farm (Shiva 1993). Knowledge is not measured by wages or profit, and as such is not considered work within capitalism.

Women's roles in these farms are often invisible to a capitalist society because of the nature of the work that women do on the farms as well. If one produces and then consumes the products of their labor, according to capitalism, one has not produced anything; their profit is zero so production is zero. Thus, if a woman produces all the food her family needs but nothing more, she has not worked (Shiva 2016). Entire families will assist in the care of the farm, but if only men take the products of the whole family's labor to the market, they are the ones who get credit and they are the ones who do the "work" (D. Fink 1988). When men are the only ones who earn money and credit for the products, women's labor goes unnoticed and undervalued. Within a capitalist society,

work is only considered such in its ability to create a profit (Shiva 1999; Marçal 2016), and so long as work continues to be defined in a way that inherently excludes their efforts, women farmers face an uphill battle in the fight for recognition.

Interestingly, when women are involved with food cultivation and production – outside of their traditional gender role as cooks (Sachs et al. 2016) – it tends to be more with produce and non-animal crops. In fact, women make up just over half of the vegetable production labor force and are the main producers of staple crops around the world (FAO 2009). But when women do interact and help with livestock, it is normally in their care – grazing the cattle, milking the animals, cleaning the stalls – and not in their slaughter (V. Fink 1988; Dankelman and Jansen 2010). Instead, it is men who completed tasks like the “ploughing [of fields], castration, [and the] purchase and sale of farm animals” (Dankelman and Jansen 2010:25). While women’s roles in animal farming reflect the stereotype of women as caregivers, it also demonstrates the problematic nature of the definition of work. The farm tasks that men were most likely to complete are the same ones that would be socially beneficial to them. Women's work on the farm was work done closer to home and in the home, outside of the public eye and in an area different than that of men’s farm work (V. Fink 1988). When the meat and products of the farm were brought to market, the care and upbringing of the animals became completely invisible to the consumer and with it so did the women’s work.

A number of feminist scholars have written on the ethics of eating meat, connecting it to a larger patriarchal context. One feminist scholar connects the subordination of women to the hierarchical valuing of humans over animals, and men over women (Gruen 1993). Through the consumption of meat, this hierarchy is only

perpetuated, particularly when taking into account the fact that within our current food system, female animals fare the worst. Female cows are continuously impregnated in order to produce milk and hens are pumped full of hormones to produce eggs and later sizable chicken breasts (Gruen 1993), and these actions only emphasize and perpetuate this gender and species hierarchy.

Likewise, Carol Adams sees consuming meat as a perpetuation of patriarchal values. She writes, “Meat reflects back male power every time it is consumed. From symbolically defeated females flows the imagined power that is assimilated by the victor” (Adams 1990:450). Adams suggests here that by eating meat, a man is promoting and furthering his masculinity through the consumption of an animal. Whether or not Adam’s theory of gender and species hierarchy is in fact true, the mistreatment of animals raises some other concerns. There is a well-documented connection between pet abuse and intimate partner abuse in that people who abused their significant other were also likely to abuse their pets (Faver and Strand 2003; Gallagher, Allen, and Jones 2008). While there have been no similar studies done on the abuse of factory farm animals and intimate partner abuse by those who work in these factory farms, it seems that there is a possible connection there to be studied.

Food Justice

Through an understanding of ecofeminist theory and the consequences of climate change, it becomes clear that a revamping of the modern food system is necessary in order to address larger systems of oppression and support the well being of the environment and women. Many feminists, particularly those who focus on the ethical

issues with eating meat, argue that vegetarianism or veganism is the proper solution to the aforementioned issues. While certainly there is nothing inherently wrong with choosing a vegetarian or vegan lifestyle, and there are absolutely benefits to the environment (Weber and Matthews 2008), there are a number of drawbacks in exclusively pursuing this kind of diet.

One of these drawbacks stems from a lack of knowledge about the intersection between meat and climate change. Many individuals are simply unaware of the link, but even when presented with scientific data about the connection many are reluctant to change their eating habits (Truelove and Parks 2012; Macdiarmid, Douglas, and Campbell 2016). This could be in part because some did not believe it would make a noticeable difference, but also because meat plays a large role in many individual's cultures (Macdiarmid et al. 2016). In fact, many alternative food movements have been criticized for their "whiteness" and insensitivity to the cultural importance of meat in many communities (Guthman 2011; Macdiarmid et al. 2016). Even farmers markets, CSAs, and other proposed alternatives to the industrialized food system tend to exclude African-American and other non-white individuals, whether intentionally or not, as these spaces become "white spaces" (Guthman 2011).

Race is just one of the many factors to be considered within food justice, another of which is socioeconomic status. A completely vegetarian lifestyle can be expensive and a vegan one even more so. Pursuing a non-meat diet implies that one has "the ability to refuse certain kinds of sustenance because one can get those same calories elsewhere" (Mallory 2013:182), implying a kind of socioeconomic privilege in choosing this diet. Food justice that only works for those who can afford it is not food justice at all.

Feminism acknowledges intersecting identities and to say that these diets are a solution to move towards food justice would be to ignore the various identities that play into it (Sachs and Patel-Campillo 2014). On an individual level, a change in diet can help ensure an individual contributes to these systems of injustice as little as possible. On a larger scale, however, it is difficult to enact change in entire systems through a few individuals' changes in habits.

Instead, a more communal approach to farming and the more widespread integration of a newer, sustainable way of food production seems a promising avenue for combatting and challenging these unjust systems. These channels of food production can help “address deep power inequalities based on sexism, racism, patriarchy, and class power” (Sachs and Patel 2014:405), making this approach to food justice a more comprehensive one. Community gardens and urban agriculture have become increasingly common as efforts towards food justice have become more popularized. One community in Detroit, known as the Detroit Black Community Food Security Network (DBCFSN), has been using urban agriculture to respond to the needs of their community and combat patriarchal systems (White 2011). Black individuals living in these Detroit neighborhoods were some of the ones most affected by food deserts and inaccessibility to wholesome, nourishing food, so a group of women residents formed DBCFSN. These African-American women saw their work as both a response to a food crisis and as an activist organization where they could fight against other injustices (White 2011).

Outside of these community efforts towards food justice, women are entering other areas of farming in ever-increasing numbers, and have been since the early 2000s. Even these women who participate in more large-scale, less community-based forms of

farming tend to use more sustainable methods and avoid many of the environmentally detrimental parts of the agricultural system, like synthetic fertilizers and farming machinery (Sachs et al. 2016). Women's efforts on farms reflect their efforts in activist organizing, as women are largely the leaders of movements toward environmental justice (Brown and Ferguson 1995; Bell and Braun 2010). In Rachel Carson's book, *Silent Spring*, for example, she pushes for alternatives to the widespread use of harmful synthetic chemicals in industrial farming (1962), a suggestion embodied in many women's sustainable farming (Sachs et al. 2016). Likewise, women's environmental organizing around the world has led the way in promoting more sustainable and environmentally friendly farming practices.

The Green Revolution, a movement that promised higher crop yields with the use of synthetic fertilizers and pesticides, has been spoken out against by many women all around the world, particularly in the Global South where the Revolution is supposedly helping the most. Shiva is a prominent critic of The Green Revolution, pointing out that these methods only leads to a faster depletion of soil's natural resources and instead leads to "famines and are at the heart of the food crisis the world is facing today" (Shiva 2016:17). Hence women are combatting an unjust food system from a number of approaches by working against systems that have damaged their livelihoods and by helping to create new systems of farming and food production.

The community gardens and urban agriculture spaces that were born out of DBCFSN became spaces of activism and "resistance against the social structures that have perpetuated inequality" (White 2011:18). For many of these women, taking control of food meant taking control of their lives. They were able to become self-reliant in the

face of capitalist systems working against them, and this self-reliance is a sentiment that is echoed across numerous feminist food justice initiatives. Women in other parts of the world are similarly working against these systems of oppression by creating sustainable agricultural systems and working towards food sovereignty (Sachs et al. 2016). By placing women at the heart of the movement, working to include people of all identities, valuing food and the earth for more than just profit, and putting power back in the hands of communities, feminist food justice will become a reality.

Food is a basic necessity to living, but most individuals do not produce their own food, leaving their very survival in the hands of, often nameless, others. The current system of food production is connected to the same systems of racism, capitalism, and patriarchy that oppresses so many, and women cannot ever truly be liberated until they are no longer reliant on these same systems for their own survival.

The status of women cannot be improved if they are unable to focus on anything but survival and the simple means of nourishment. If women do not have access to the most basic living necessities, they cannot focus on improving their social, economic, or political status. Through an understanding of how climate change affects women, an application of feminist values to the environment, an understanding of how the same systems that oppress women are the same systems that harm nature, and a broader understanding of our food system, one can begin to understand how a move towards food justice is compatible with, and even desirable in, feminist theorizing.

Methods

Qualitative research methods are becoming an increasingly utilized and reliable form of research in social science, with interviews being one of these many ways to gather data (Milena, Dainora, and Alin 2008). Certainly, there are a number of limitations of interviews and other qualitative methods, generalizability and replicability being two of the foremost concerns. Despite this, interviews can give deep insight into the ways in which an individual understands himself or herself, or even the ways in which they understand certain issues and events (Dilley 2004). One of the main purposes in using interviews rather than surveys for this study was the ability to ask follow-up questions that can give deeper insight into respondent's answers that is not possible through other qualitative or quantitative means.

Similar to interviews are focus groups, which are comparable to group interviews with a certain set of people with something in common (Milena et al. 2008); if focus groups were to be used in this study, for example, the commonality would be small-scale food production. A concern of focus groups, though, is that the participants will change their responses in order to be more liked and accepted by their peers (Milena et al. 2008). Additionally, the discussion of their personal experiences may have been limited by what other people said or how other people directed the conversation. Some feminist scholars argue that focus groups or group interviews can reduce imbalances of power between the researcher and the research participants and provide a space for marginalized groups to share and validate their collective experiences (Esterberg 2002).

Certainly some interviews can be very one-sided, with clear power differentials, where only one person is responsible for creating knowledge. These are known as

structured interviews, where one person is asking the questions and the other person is sharing their personal experiences. In contrast to these are semistructured interviews, or in-depth interviews, where there are guiding questions but the researcher follows the lead of the interviewee. These are structured more like a discussion, and the interviewer plays off of the responses of the interviewee, asking follow up questions in order to further understand the interviewee (Esterberg 2002). Better interviewing practices are reminiscent of a conversation, involving an “exchange [of] information and ideas through questions and responses, resulting in communication and joint construction of meaning about a particular topic” (Janesick 1998:30). This definition is more reflective of semistructred than it is of structured interviews. It is through this exchange of ideas, a sort of relationship between the interviewer and interviewee, that new meaning and knowledge is created (Esterberg 2002).

The purpose of this study was to examine how local Dayton food producers view their work within a larger social context. Half hour- to hour-long, face-to-face, semistructured interviews were conducted in order to determine how food producers view their work, particularly whether they viewed their work as combatting systems of oppression or working towards social justice. The participants of this study were a purposeful sample of six food producers and farmers in the Dayton/Miami Valley area. Of particular interest were those food producers who work on urban farms, community gardens, and other comparable, small, community farms. These food production methods are seen as an important component in food justice and ways to challenge the problems that arise due to the interconnection between food and climate change (White 2011; Sachs and Patel-Campillo 2014; Bradley and Herrera 2016; Sachs et al. 2016). For this

reason, food producers on farms like these were of primary interest.

The questions asked during the interviews ranged from how the farmers became involved with food production to more in-depth questions about the relationship of gender and farming and if they were familiar with ecofeminism. The interview was structured in a way so that a gradual rapport was built with the farmers and by the time more sensitive questions of food justice and ecofeminism were asked, they were more comfortable and honest in their answers to these questions (Esterberg 2002). The purpose of the study was to understand the unique experiences of each of the food producers particularly as it relates to gender, farming, and climate change; as such, it would be difficult to gain the necessary information from a survey. When it comes to trying to understand the full experience of an individual, interviews seem the best avenue through which to do this.

Once all the interviews were conducted and transcribed, a grounded theory approach was used to analyze the collected data. “Grounded theory” was a term first used in the mid 1960s and refers to the idea that theory and understanding emerges from the data and information gathered during research (Oktay 2012). Using the grounded theory approach as a method to analyze and understand data can give researchers a more full understanding of the collected data. Rather than choosing a framework and searching for pieces that fit and support the framework, grounded theory is a more inductive approach, and uses the data to create meaning (Esterberg 2002). If a researcher is going into an interview simply looking for answers that will support their preconceived ideas, there could be critical pieces of data that go overlooked.

In the grounded theory approach, one of the first steps in analyzing the data after

all the interviews were conducted is called open coding or initial coding (Oktay 2012). After the researcher has become familiar with the data, the researcher identifies certain categories within interviewee responses using open coding. Open coding can include anything of importance that arises from the interview, even if the codes were not relevant to the initial research question. After this first step in analyzing the data the researcher develops themes that arise from similar categories developed during open coding. Themes can develop simply from the number of times a certain category appears in the transcripts, from the realization that all interviewees mentioned the same theme during their interview, or from a number of other reasons determined by the researcher (Esterberg 2002). Important in analysis, too, is the absence of certain themes that a researcher may have thought warranted discussion, as what interviewees do not discuss can provide as much valuable insight as what they do discuss. Once themes are identified, the researcher goes back through the transcripts and initial codes to find support for the themes they choose to more deeply analyze (Esterberg 2002). There is this continuous cycle of returning to the transcripts in order to create meaning, so the analysis, then, becomes a more organic derivative of the data.

The research and analysis began in February 2018 after the Institutional Review Board (IRB) approved the study and participants were located. Participants were first located using a Google search of Dayton farmers and later snowball sampling. A total of six food producers were sampled and interviews took place face-to-face on the participant's farm. Each interview was a one-on-one except for the interview with Bert and Cecilia, which was completed with both interviewees at the same time. All six participants were white, lived in the Dayton area, and worked on small-scale produce

farms. Four of the participants were woman, two were men, and their experience in farming ranged from less than one year to more than twenty years. (See Table 1 for an overview of participants.) The interviews were audio-recorded, transcribed using *Describe* software, and later coded by the researcher. The final coding took place after all the interviews were complete and major themes of all the interviews were identified. After transcribing and coding the interviews, the researcher analyzed their responses, compared and contrasted them with the literature review, and concluded the research with suggestions on how to move forward.

Table 1 Participants

Name	Gender	Farm Type	Experience Farming	Farm Location*
Anna	Woman	Family-Owned Farm	10+ Years	Rural
Rose	Woman	Urban Farm	Less than 1 Year	Urban
Arnold	Man	Aquaponics	Slightly Over 1 Year	Rural
Harper	Woman	Urban Farm	10+ Years	Urban
Cecilia	Woman	Organic Farm	20+ Years	Rural
Bert	Man	Organic Farm	20+ Years	Rural

*: Rural refers to farms outside the inner city of Dayton, while urban refers to farms in the inner city of Dayton

Results

A number of similarities arose across the interviews including the farmers' discussion of funding difficulties, an interest in food, difficulties in balancing nutrients to make plants grow, and CSA (Community Supported Agriculture) programs. While each of these are important matters worth exploring further, of interest within this research were the participant's responses in regards to gender, sustainability, and profits, among other topics.

Ecofeminism

Among the six participants who were interviewed, none were familiar with the term “ecofeminism.” Upon being asked whether she was familiar with the term, Cecilia responded,

“Well, I can guess what that means... We need to lock all the men up, they’ve been in charge for so long and where has that gotten us? It’s because of all that testosterone, it’s so dangerous.”

While Cecilia was the only farmer who thought she might know what the term meant, each of the other food producers had mentioned values that fit within an ecofeminist framework without knowing about or naming the movement. Anna, for example, said,

“We see ourselves as stewards of the land. We’re working *with* the land, not against it.”

In the same vein, Rose noted that she and those whom she works with

“Respect the area [on which they farm] for what it was meant to be.”

Rather than trying to completely transform the land, Anna and Rose worked to make the land a more fertile and healthy version of what it already was. Harper, too, noted that people should pay closer attention to the ways in which the earth accomplishes what many try to through traditional farming methods.

Additionally, discussion of the cyclical patterns of nature and the value of reciprocity came up in the participants’ interviews. Using an aquaponics system, Arnold discussed that his entire farming system relies on reciprocity from each element of the system. In aquaponics, he explained, fish provide fertilizer for the plants through their feces, bacteria in the water breaks down the feces into nitrogen and other elements for the plants, the plants absorb those broken down nutrients and clean the water for the fish, and the cycle begins again. If any one of these elements were off balance or simply taking

and not giving back, Arnold's entire farm could be at risk. Arnold particularly emphasized the need to put back into the soil what one takes out of it,

“I think it's twelve essential vitamins you should be getting out of plants, but we're only putting three back in the ground.”

Through this quote he points to the lack of reciprocity within industrial agricultural practices. Similarly, Harper noted,

“All cycles on earth are circular, it all has to come back around. But they way we're approaching economics, it's all linear. We're going to destroy the earth.”

Through this quote, Harper not only draws connections between the value in modeling a farm system after nature, but she points to the ways in which our current economic system is, at least partially, to blame for the environmental crises. The way in which the economic system has viewed the earth in a one-way, strictly taking relationship, rather than a reciprocal one, to Harper, will lead to ecological destruction. Arnold commented,

“The more I studied [the food system] the more I realized what we're doing to ourselves,”

noting a correlation between the quality of the food system and the health of individuals. It became clear that participants were mindful of the interconnectedness of farming, the earth, and personal well being.

Sustainability

An issue that each of the food producers commented on when asked about climate change and the food system was the distance that food has to travel and the amount of greenhouse gases released and fossil fuels used in the process,

Arnold: “Most of our food travels 1500 miles!”

Rose: “Greenhouse gases and how much... travel fuel is used...”

Harper, on increasing local food production: “So, you know, there’d be more in the actual area you live in instead of shipping it all across the country.”

Anna: “To be so close to the market is really great. It’s been a while, but we keep all our receipts and we know how much money we’re spending on filling up our market truck... All things considered... the farm is using significantly less gas than other options.”

Cecilia: “In California, you’ve got Californian strawberries going to Mexico and Mexican strawberries coming to California!”

It was clear that food travel and the effects of it on the environment were issues that the food producers felt warranted attention. It seemed food travel, for each participant, was not necessarily an issue on their farm, as they were local, but rather an issue within the industrialized food system.

Anna discussed her farm’s efforts to reduce the plastic used to cover crops, which is a method used as an alternative to chemical pesticides and herbicides. She noted many organic farms will

“Put plastic on the entire field [to avoid pests], but that just doesn’t feel good to us.”

Anna worked to identify crops for which the plastic is absolutely critical, and eliminate it for crops that do not need it to cut down on plastic usage. Other farmers mentioned farming practices they used in efforts to help the environment and be more sustainable. Bert discussed how organic farming was a purposeful decision in order to keep the land and waterways healthy and to make sure the natural resources surrounding the farm were preserved. Arnold discussed how aquaponics uses just five percent of the water a traditional farm uses since his system is cyclical and he doesn’t have to be concerned with runoff and soil erosion. Rose discussed her urban farm’s efforts to plant native

plants and move out invasive species in order to help the environment. Both Anna and Harper cite sustainability as a driving forces behind their interest in farming and commitment to use environmentally-friendly practices in their farming methods. While Harper most explicitly said that a concerns over sustainability were a reason she entered farming, the five other farmers each, at the very least, were steadfast in efforts to farm in a way that they saw as more sustainable than industrial agricultural practices.

Cecilia and Bert were the only two food producers to mention trees and plants as important parts of reducing greenhouse gases. They discussed a property tax law in Ohio that allowed farmland to be taxed at a lower rate than other types of property, but that law was changing. Cecilia explained that in order for farm property to be considered eligible for the lower tax rate, they had to cut down trees on their farmland:

“Timber is also an agricultural product... and they’re now really pushing you to harvest timber. So at a time when we really want the entire world to plant trees, in Ohio, they’re pushing people to cut sooner... Are they more valuable as paper pulp or are they more valuable as cleansers?”

Bert voiced the concern that people would begin cutting down trees in order to keep the lower property tax rate, eliminating a potential solution to climate change.

Finally, Harper was the only one of the food producers to allude to the impact of livestock farming on climate change and environmental degradation. In discussing sustainable farming methods, she made a point to note that there is a sustainable way to farm cattle, but that it is just not being widely utilized.

The Life and Death of Soil

While soil is certainly a relevant factor within sustainability, the participants discussed it as such an important part of the growing process it seemed necessary to make a separate code specifically for the soil. Unsurprisingly, each of the participants brought

up soil as an extremely important part of the growing process and identified pesticides and herbicides as antithetical to the success of their crops. None of the farmers used synthetic chemicals, and it was a purposeful decision that sometimes proved hard as Arnold admits to having bug issues that necessitated a number of creative solutions. But to Arnold, it's worth it,

“I say we're better than organic, because organic still allows some pesticides, they're safer than most [non-organic pesticides], but...”

He and Harper both noted that pesticides and herbicides do the job, but at a great cost,

Harper: “When you're using Roundup or something that kills all your soil bacteria, you know, you're basically gradually killing your soil and you'll be completely dependent on artificial fertilizers.”

Soil, particularly the bacteria in the soil, is what allows Harper and Arnold to grow such flourishing crops. Using pesticides and herbicides may kill unwanted pests and invasive weeds, but it also kills the very thing that allows the plants to grow. Bert noted,

“We're trying to protect what we already have... you have to protect the soil, the earthworms, and the nutrients already in the soil.”

Arnold mentioned that the artificial fertilizers used in much of industrial agriculture only gives back to the soil what the plants absolutely need to grow.

Arnold: “But when we're using pesticides or herbicides we're killing the bacteria in the ground. And you think bacteria are bad, but no. Bacteria is what breaks everything down and makes all those nutrients available to the plants. So the bacteria in the soil is actually being killed and destroyed, and... I guess... that's not how nature intended it anyways.”

But by only giving the plants what they need, Arnold believes we are killing ourselves, as we are not giving ourselves the proper nutrition we should be receiving from vegetables and other produce. Bert, too, discussed significant adverse changes in the nutritional

content of plants because of changes in farming. Cecilia discussed how industrial agricultural practices only value the pounds of food per acre, not the nutrition per acre,

“They’re treating soil like it’s just something to hold the plant up!”

Cecilia drew a stark distinction between how soil is valued on hers and Bert’s farm versus on industrialized agriculture.

Rose and Anna both discussed their efforts to work with and keep good soil on their farms that were conducive to growing:

Anna: “We basically had to almost relearn [farming] when we got [our own farm]. Our soil was just so different than the farms either of us had worked on before.”

Rose: “We’re constantly trying to make sure we’re not stripping our soil and maintaining high quality soil.”

Soil, for these farmers, seemed to be the most important element of the growing process, and the health of the product was dependent on the health of the soil.

FarmHers: Gender on the Farm

Based off of these responses of the six interviewees, it seems that women and men largely do similar tasks and work on the farm. Both Harper and Rose mentioned that in the past few years, almost all the interns on their urban farms were women, though both also admitted that with so few people working consistently on the farm, everyone has to do everything. There is not much room for division of labor when two or three people are working the entire operation. Arnold and his wife had a similar experience as the two primary workers on the aquaponic farm, though it was clear that the farm was his idea.

In a response that Harper gave when asked about men and women inhabiting different roles on the farm, she mentioned the number of women entering politics as a

tangential point:

Harper: “And I think we’re seeing more women maybe in these types of roles that... well, you see them all entering politics now.”

Interviewer: “When the men leave?”

Harper: “Well, or [the men] just don’t have the right priority: taking care of our future.”

Harper’s quote here points to a possible belief in the necessity of having women in all areas of social life in order for sustained change. Of all the food producers, Anna discussed the most division in what she and her husband did on the farm:

Anna: “I mean, you have the best intentions... and then it happens you just fall into your roles and... yeah. So I see that happening on this farm. Where [my husband] is doing a lot of the production stuff, the field management, and I’m doing a lot of the harvest and CSA customer service type stuff.”

Anna also mentioned how it’s easier when the tasks are split up so that

“He’s not worrying about this and I’m not worrying about that.”

She mentioned how much more she enjoyed harvesting than her husband and that she felt there was equal responsibility and effort in taking care of their children. Similarly, Bert discussed that he and Cecilia do different tasks on the farm, though it was out of experience,

“I take care of all the machinery, the mechanical work... but that’s

because I worked in construction and was a car mechanic.”

Bert had also discussed unloading a truck with other women farmers and wanting to help them with the large bags of potatoes, though he said this had more to do with strength than their gender. Cecilia agreed that sometimes,

“Gender is all in your head... but physical bulk can affect things.”

Rose had discussed being on the receiving end of this sentiment, as many men often

offered to help her with heavier items and expressed surprised when she could move them herself.

Anna and Harper both expressed a kind of pride in seeing more women entering farming and running their own farms and directed the interviewer to sites that highlighted these women's accomplishments.

Profits Over People

Of the six participants, Harper was the most outspoken in the ways in which capitalism and the value placed on profit contributed the most to the destruction of the earth. She regularly referred to the ways in which profits were repeatedly valued over the health of the earth, quality of life, and community among other topics:

“The biggest thing with food justice is profit, you know. They decided they'd take over the food industry.”

“It's all in the name of profit. We've got these GM crops in order to sell more pesticides and fungicides. It's all about corporatization of the food system for profit, which is where we get all the food access and healthy food issues. The highest profit margin foods are things that are really high in sugar. You know, sugar is super cheap. And then industrial [agriculture] comes in and kicks out all the little guys.”

“Quality of life issues shouldn't be more important than profit, and in our country it's completely that way. It's basically why [my old urban farm] was kicked out [of the land]. They didn't care about the quality of life issues that so many in the community felt was more valuable than development.”

It is clear that Harper made deep connections between the ways in which industrial agriculture has become desirable because of profits, not because of its potential to improve the earth and community. Arnold, too, repeatedly noted,

“People will do whatever it takes to make money.”

He pointed out industrial agriculture as especially guilty of this:

“Is it Monsanto?... It’s like anything in life, I’m trying to make a profit, but at what point do you compromise your values to make a profit? I guess that’s the biggest issue.”

“There’s a reason we have cheap food, and it’s because they found a way to make it cheap. And it’s a tradeoff. Trust me, I am one of the cheapest guys you’ll ever meet, I used to buy the cheapest things I could find... But there’s a better way.”

Harper, Bert, and Cecilia also identified Monsanto, in discussing the valuing of profit and, in fact, Harper was part of planning the *March Against Monsanto* in Dayton.

Monsanto is one of the largest and most powerful agricultural corporations in the world and is widely known for its production of genetically modified plants and seeds (or *GMOs*), fertilizers, herbicides, pesticides, and other agricultural products (2016). In Arnold’s criticisms of industrial agriculture, he makes clear that, like Harper, he believes that larger corporations are most concerned with making a profit. Likewise, Cecilia said that farming has shifted far away from what she believed it should be about,

“It’s an industry... farming is about biology and science, not about economics.”

She and Bert each expressed their deep disdain for the ways in which farming has become more concerned with having the newest equipment, creating less work, and profitability.

While Rose and Anna, too, were both familiar with the valuation of profit, Rose referenced it only in relation to the difficulty for new farmers to compete with corporations. Anna, on the other hand, did not mention larger corporations at all, but shared someone’s idea she had heard on the radio about making healthy foods less expensive to incentivize purchasing them. After relaying this person’s idea and marking her approval of it, Anna did admit,

“But that seems like such a big – a whole shift [in farming].”

For both Anna and Rose, though the focus on profit is not as much of an enemy as it was for Harper and Arnold, they both acknowledge the ways in which profitability is valuable within industrial agriculture.

Interestingly, all the farmers discussed the amount of physical labor involved with their role. Rose talked about going to bed far earlier than she usually did when she began working in the urban farm because she was so exhausted from the physical labor. Bert discussed his desire for somebody else to take over the farm, but that it was difficult to find anybody willing to put in the amount of work necessary to keep the farm running. Similarly, Cecilia said,

“We find that people don’t find this lifestyle of work, work, work, work, work, sustainable or worth it... people like a big income, people want their evenings.”

To these farmers, the work involved in sustaining a farm like theirs seemed more intensive than what they considered the average amount of work for an everyday job.

More than Just Food

A striking component of this research was some of the fascinating connections that participants made to topics seemingly unrelated to food justice, farming, or gender. Rose, for instance, named food as part of the solution to the opioid crisis that is particularly prominent in Dayton:

“Obviously, [Dayton] is one of the top opioid overdose zip codes in all of the United States... it’s a very complex issue, but not having the proper nutrition, not having the proper food – I mean, that connects to a lot of different aspects of life. If you’re eating really processed foods all of the time, your whole life, that’s inevitably going to lead to health issues and bodily pain that could make someone turn to [opioids].”

The connection that Rose drew between health and food was echoed by the other farmers,

though none connected them to the opioid crisis or other health crises as Rose did. All six farmers, though, commented on the industrial food system as the main problem in access to healthy foods and in flooding the market with non-nutritive and highly processed foods.

Arnold discussed how his farm is modeled after one created by a father who was looking for better treatments for his son's schizophrenia. A change in diet to the foods his father grew on that farm proved incredibly helpful for the son with schizophrenia and, according to Arnold, improved the son's quality of life. In the case of both Arnold and Rose, the foods they were producing had the ability to reach further than what one may traditionally expect. These foods were not just healthier than some alternatives, for Arnold and Rose it seemed food was comparable to medicine.

What was similar for all six of the respondents, though, was their belief that the current industrial farming system is in need of a change. As Arnold put it,

“There's just a better way.”

And Cecilia echoed,

“A lot about modern agriculture is just stupid, it's beyond insane.”

Harper voiced that her work was dedicated to the betterment of the community and that she wants to model and teach people a better way to farm food. For all six food producers, in fact, educating others about food was of key importance to them. The education was multifaceted, including teaching about how to grow and how to cook the produce, the quality and potential benefits of the produce, and how to build a farm like theirs. Arnold noted that we have to teach farmers better ways, because most of them just don't know that there is one. Contrastingly, though, Cecilia argued that farmers know that

there is a better way to farm, but are just not doing it. Nevertheless, the farmers were dedicated to not only improving their own lives, but the lives of others. As Anna said,

“We’re doing what we’re doing because we think it makes a difference.”

Farming, for these six food producers, was not just growing and selling food, it was a way to better the world around them in more ways than one:

“I see farming as the solution to so many problems, and so it’s just a matter of them all coming together.” - *Anna*

All of these farmers shared a dedication to improving the health, knowledge, and environment in their communities. Their farming was not only for the sake of farming; it served a larger purpose. As Harper voiced,

“We’re here to make it better for the future.”

Discussion

This study found that despite a lack of awareness of ecofeminism and the association between gender, food production, and climate change, farmers nonetheless were making efforts that were both in line with ecofeminist thought and that used farming methods that could help alleviate environmental destruction and gender-based inequalities.

For all of these six farmers the environment was of central concern in deciding how they were going to produce their food, though it was not necessarily the reason they first began farming. None of the farmers were familiar with the term ecofeminism, and Cecilia’s idea of it may reflect misconceptions about feminism better than it does a misunderstanding of ecofeminism. Despite this, once ecofeminist principles were

explained, all farmers agreed that these were ideas they practiced on their farms: working with the earth, nurturance, reciprocity, modeling after earth's natural cycles, as well as others (Shiva 1999; Mallory 2012). While entering farming based on ecofeminist ideas may make a farm more explicitly feminist, actual actions speak the loudest and are more important in creating a more just food system and world.

Additionally, all the farmers knew that the food production system contributed to climate change, but their focus was largely on food transportation or waste and not the larger contributors such as deforestation, tilling, synthetic chemicals, and meat production (Shiva 1999; Steinfeld et al. 2006; Truelove and Parks 2012; Lu and Liao 2016). In fact, in line with Schnell's research (2013) that consumers overestimate the impact of food miles, when asked about the food system and climate change, most of the farmers discussed food miles and travel emissions as a primary contributor. Harper was the only one to mention the detrimental effects of tilling and meat production (in fact, it was Harper's interview that led to further research on tilling), water conservation was only mentioned in relation to soil erosion, and deforestation was briefly mentioned only in terms of the destruction of a solution (trees). This could be in part due to the fact that none of these farmers are livestock producers or a general lack of awareness of the impact of other parts of the food system on climate change.

Of all the topics within the scope of this research, by far soil was discussed the most. Every farmer discussed the importance of maintaining healthy soils rife with life to promote the growth of the plant rather than turning to chemical pesticides, herbicides, and fertilizers. Rather than subscribing to the capitalist idea of soil as just something to prop the plant up, the farmers see soil as the primary provider of life to the plants (Shiva

1999). Preventing soil erosion, promoting the growth of bacteria and fungi in the soil, and protecting earthworms were all concerns of the farmers that were also suggestions in previous research (Shiva 1999; Pimentel 2006; Greenpeace India 2011; Sachs et al. 2016; Shiva 2016). Arnold's claim about the decreasing nutrition in vegetables produced by industrial agriculture is one echoed by Shiva (1999), though it is unclear whether his numbers were exact. Nevertheless, his point stands that nutritional availability in plants has gone down, and to Cecilia's argument, it is because of the valuing of profits over all else.

Without even having to ask about it, the farmers were ready to discuss the difficulties of working within a system that puts profit above all else. The farmers clearly recognized that the economic system in which they were operating, capitalism, was most concerned with profit (Shiva 1993; York and Ergas 2012; Marçal 2016). They were quick to fault industrial agriculture for focusing so much on profits and gains rather than nutrition, sustainability, morals, and biology. The farmers who worked on the three smaller farms more quickly debased capitalism, but the farmers on the larger farms, too, noted a number of problems within capitalism, and none of the farmers seemed to believe it was the best economic model for farming. In fact, a few farmers noted that the emphasis on profits is what has led to vast amounts of environmental destruction.

While capitalism was on the food producer's minds, patriarchy and gender seemed all but irrelevant. Though there did not seem to be sharp distinctions between men's and women's roles on the farms as Sachs et al. (2016) said occurred in much traditional agriculture, the most stark gender divisions within labor occurred on larger farms. On the urban and aquaponics farms, there were so few people working on it

regularly that everybody did everything regardless of gender. On the two larger organic farms, though, with more land and more to do, there was more of a division of labor, which may reflect the findings of Alesina et al. (2013), Giuliani (2015), and Hansen et al. (2015). Interestingly, though, the farmers did mention seeing more women entering the field supporting the statistic of the recent increase of women farmers (Sachs et al. 2016). Additionally, one farmer mentioned women's increased political participation with environmental improvement (Ergas and York 2012; Sachs et al. 2016), suggesting that they see a connection between women's equality and environmental justice. Perhaps they may place women at the center of the environmental movement.

The farmers made connections with issues far beyond the scope of this research (e.g. the opioid epidemic and decline in home economic classes) that could also be related to the increase in industrial agriculture, as they viewed their roles in the community as more than just farmers. They were "stewards of the land" (Anna), warriors against environmental destruction, nutrition seekers, and more. They all recognized the need for a change within the industrial agricultural system and the efforts they took on their farms certainly reflected this.

While this study was helpful in better understanding farmer's experiences and understandings of a number of issues, there were limitations to this research. Notably the generalizability of this study is questionable as this was a small sample of food producers from a small area of the country. These farmers may not be representative of farmers in Oregon, Massachusetts, or other areas of the country or even other areas of Ohio. Although the Dayton area has many activist communities and activists, farmer's experiences with social issues may be different in areas with more robust environmental

and feminist activism, such as San Francisco or Washington D.C.

A second important issue to consider is the positionality of the researcher and how this could have influenced both responses to and interpretations of the data. As a white, college-aged woman interviewing participants older than her, of the same race, and with different careers and life experiences, dynamics of age, race, gender, socioeconomic status, and more could be at play. Likewise, this is only one researcher's understanding and analysis of the data, though the analysis could vary by other researcher's interpretations.

Finally, though this research gained deep insight into the experiences of these farmers and assisted in understanding their views of these topics, it does not encompass their full experience. Farming, food, gender, climate change, and the other topics covered in this research are complicated and complex topics that cannot be fully understood within the scope of one research project. This research adds to a large body of preexisting knowledge, though it is not an exhaustive account of these topics or farmer's experiences.

Moving forward there is still much research to be done and understanding to be gained. Further exploration of food producer's experiences and awareness of the intersections of farming and climate change warrants much more research. Additionally issues of food access, farming practices, food policy, land ownership, nutrition, and other issues could bolster the research presented here and give further insight into issues within the food system. But more important and more urgent is the need to act on existing information regarding the drastic effects of farming on the environment and thereby women.

These are daunting issues that no one person can tackle alone, but there is much

that people can do to contribute to the solution. While women and men alike can contribute in similar ways, it is of particular importance that women's voices and contributions are central. Women entering politics, beginning or participating in a community garden, or even just raising consciousness can contribute to the improvement of the environment and society. Local governments and organizations can support initiatives towards food justice in helping to break down barriers in farming, providing financial support to women farmers, and even just providing spaces for people to participate in local food production (e.g. community and urban gardens). It would be impossible for one person to entirely revamp the farming system, but if a community can gather and work together towards food, environmental, and gender justice, that is certainly a good start. Farming as a method towards gender equality may only be the tip of the iceberg; as Anna said, farming is the solution to so much, and more than we may even realize. The transformation will not occur overnight, but by taking steps towards gender equality and environmental justice simultaneously, feminist food justice may become a reality.

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